Know the Earth…Show the Way

Airborne Imagery Training

Airborne Training Working Group
19 April 2004
Community Imagery Training Council

Topics

- Introductions
- WG Purpose
- Training Planning
- Discussions

CITC Working Group Purpose

- WG Membership
  - Determine who will be a part of WG
- Research/Define Training Requirements
  - Training Audience
  - Levels of Training
- Infrastructure Requirements
  - Computer Based Training, Classrooms, etc.

Know the Earth…Show the Way

Airborne Imagery Training Planning

Putting More Detail in the Training Needs

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April 2004

Community Imagery Training Council

Airborne Imagery Working Group

Overview

- References
- Requirements
- Schedule
- What next

References and Context

- Airborne Imagery Training Management Plan
- Airborne Quick Look Working Group
- NTM - Airborne collector mix in FIA
  - Majority of images will be from airborne -- especially in combat operations
- “Persistent Surveillance” migration
- Airborne imagery to the analyst desktop
- NGC curriculum development planning
- Discussions with P tradecraft and Source

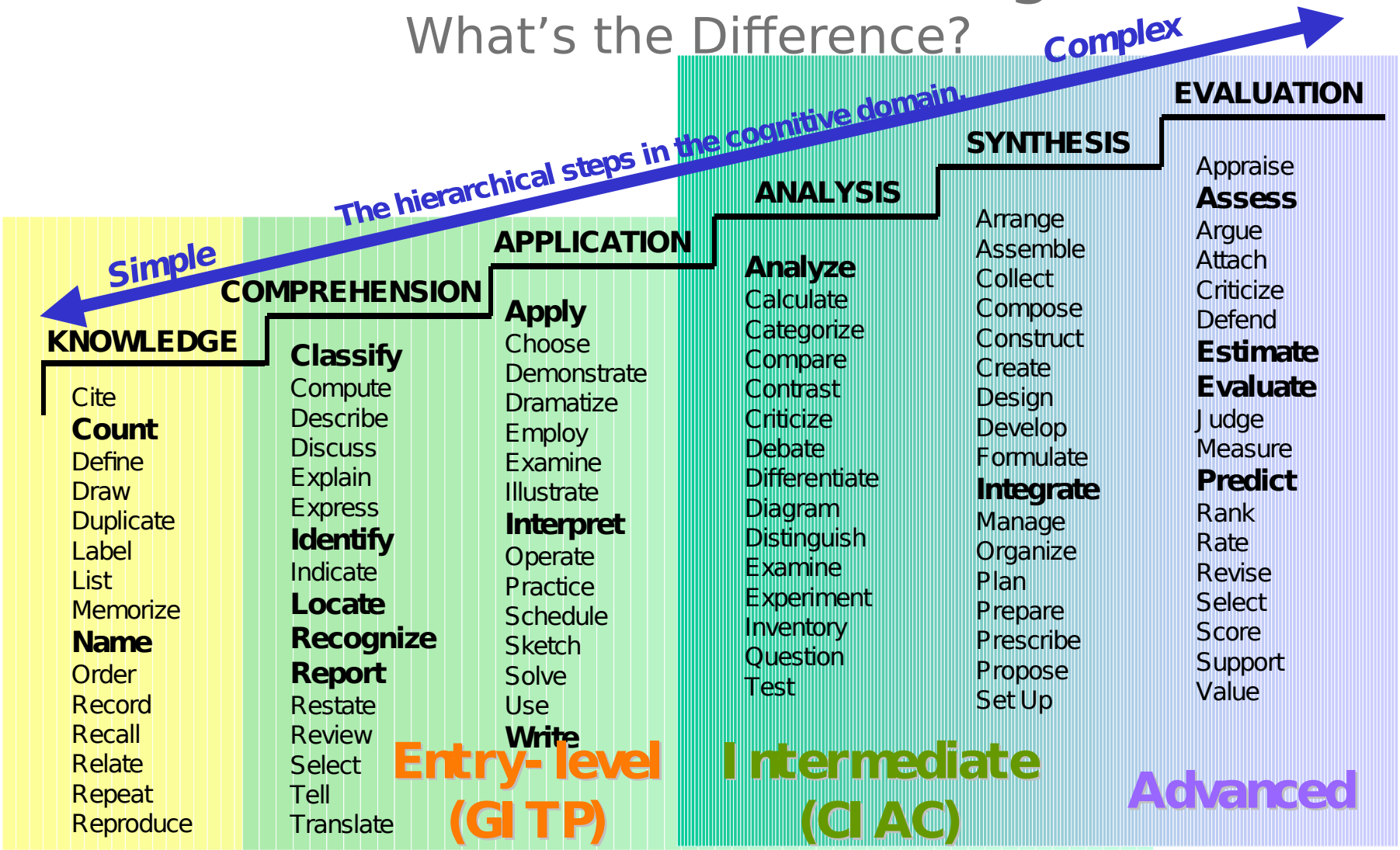
CAUTION !

This presentation is intended as a thought piece . . .

It is not a finished statement of requirements or the “HD position”

Three Levels of Training . . .

What's the Difference?



Requirements

- Look like this . . .

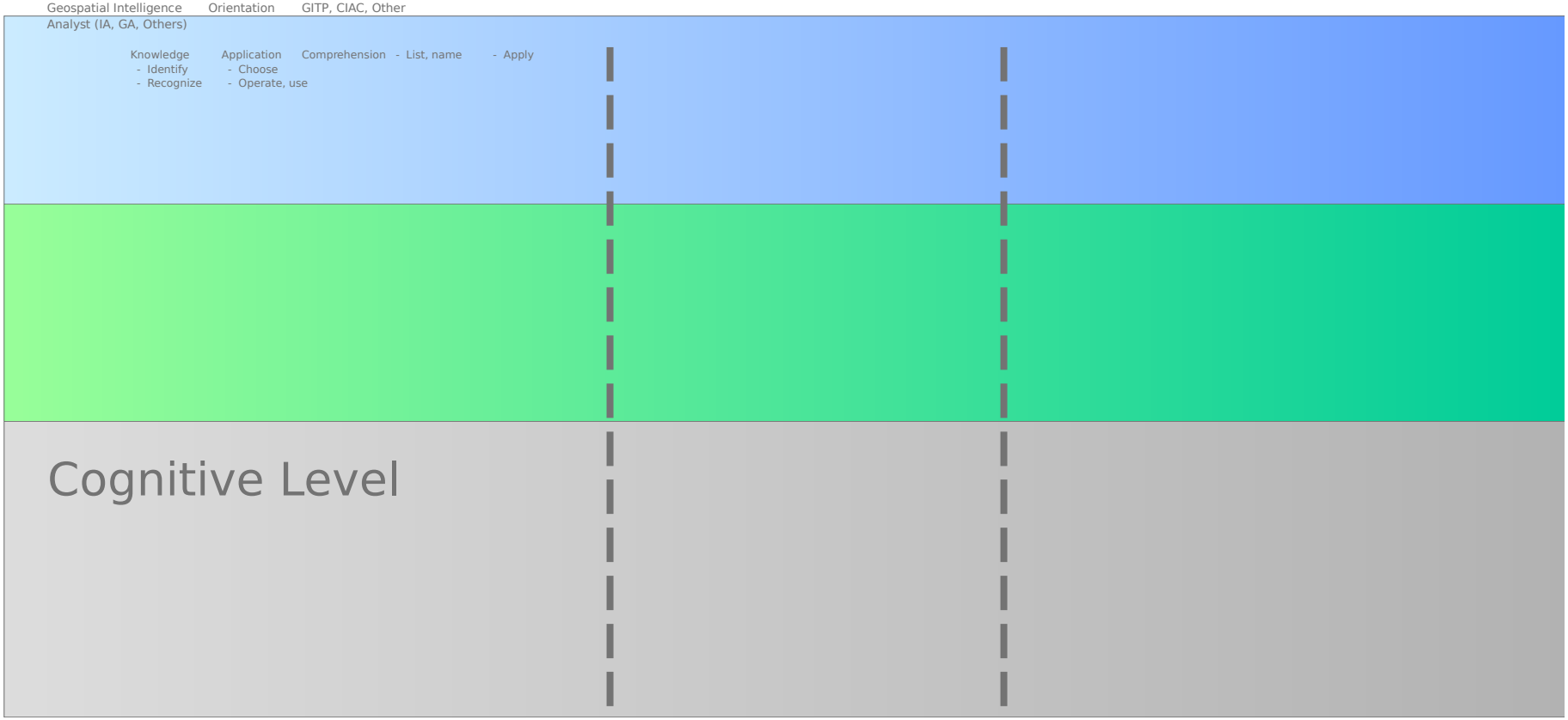
Source Management Orientation Source Tradecraft 101

Geospatial Intelligence Analyst (IA, GA, Others) Orientation GITP, CIAC, Other

Knowledge
- Identify
- Recognize

Application
- Choose
- Operate, use

Comprehension - List, name - Apply



Requirements Overview

- Requirements focus on NGA geospatial intelligence analysts
  - The 2000 or so working analysts (IA, GA, Regional, others)
    - Could be 4000 if we count JICs, JAC, Service Intel centers
  - We want to bring airborne imagery into NSG as mainstream source
- Requirements relate to existing IA training standards and taxonomy of cognitive learning

	Definitions	Cognitive Level
KB	Students require basic overview of the topic. Will demonstrate knowledge of basic concepts and principles, be able to identify key facts, list important concepts	Knowledge or Comprehension level: - List, Identify, Recognize, Name
KD	Students require in depth knowledge of the topic. Will demonstrate knowledge of how and why of processes. Will be able to identify organizational roles and missions, interpret and analyze data.	Application level: - Apply, Choose
PU	Students will be demonstrate performance skills on workstations. Be able to perform key tasks without supervision.	Application level: - Apply, Operate, Use

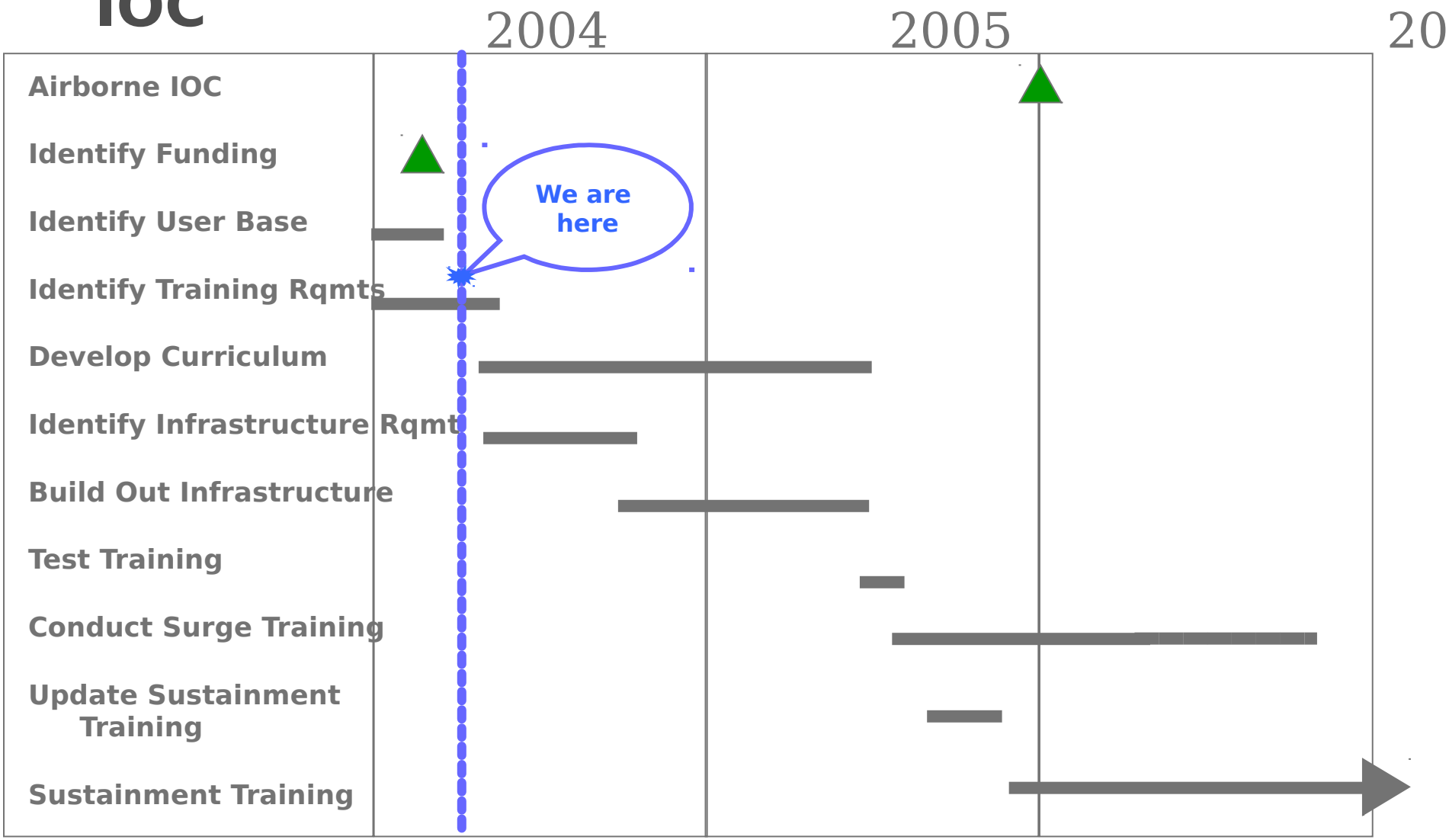
Requirements Overview

	Source	Analyst	Manager or Executive Orientation
An overview of terms, processes, and organizations associated with requirements management and operational tasking of airborne collection systems;	KD	KB	KB
An overview of terms, processes, and organizations associated with airborne imagery collection, processing, exploitation, and storage operations;	KB	KD	KB
Presentation of US national policies regarding airborne collection operations;	KD	KB	KB
Explanation of information protection and security guidelines associated with release of airborne imagery and derived products to US Forces, allies, and coalition members;	KD	KD	KB
Integrated collection strategies for NTM, commercial, and airborne imagery in support of national, theater, and tactical needs;	KD	KB	KB
Description of airborne system platforms, sensors, physics, capabilities, limitations, and phenomenology;	KD	KB	KB
Unique aspects and considerations in tasking airborne platforms and sensors, both manned and unmanned;	KD	KB	KB
Introduction to integrated airborne collection strategies to support military and civil operations; training in the principles, skills, and techniques associated with exploitation and analysis of imagery from airborne systems;	KB	KD	KB
Nomination and data input tools associated with airborne imagery collection;	PU		KB
Application of airborne systems to identify and analyze key functional areas in military and industrial facilities		PU	KB
Request for Information and Collection Requirement formats and processing;	KD	KB	KB
Familiarization with the technical (systems) architecture supporting airborne integration and hands-on training on the NSGI end-to-end **systems, applications, and tools associated with exploitation** of airborne imagery, including prerequisite training identified in the NSGI airborne integration training management plan	KB	PU	KB
Research and data retrieval techniques associated with tactical imagery collection systems and libraries	KB	KD	KB
Familiarization with the technical (systems) architecture supporting airborne integration and hands-on training on the NSGI end-to-end **systems, applications, and tools associated with tasking** airborne imagery, including prerequisite training identified in the NSGI airborne integration training management plan	PU	KB	KB
Familiarization and use of situational awareness tools and software applications	PU	KB	KB

Important Requirements Question

- Do the analysts require “hands-on” (performance) training? (Or can they get by with “theory” lectures?)
  - $2,000,000 question
  - If not, we do not have to build softcopy workstation-equipped classrooms
- We believe analysts ***do*** require hands-on training
  - Practice airborne imagery research and History of Coverage queries
  - Use predict and assign functions that include airborne imagery
  - Actually read and use airborne imagery titling data, project identification, image IDs
  - Perform query, discovery, and retrieval from CALA
  - Use airborne imagery software applications (if not Remote View)
  - Practice and experiment with motion imagery
  - Build imagery products from motion imagery
- HD has presented this question to NGA/P tradecraft office (PTT)

Airborne Training Timelines – Jan 2006 IOC



What's Next

- Recommendation:
  - NGA and Services work together to develop airborne training
  - Develop training "objects" or reusable blocks of training that can be easily plugged into any course as needed
    - easily tailorable to needs
    - in formats that are interoperable
  - Use CITC working group as clearing house for cooperation and coordination
  - Plagiarize from the best
  - Include airborne imagery training in all basic imagery courses
    - Airborne imagery is required to support Air, Ground and Maritime operations
    - Airborne imagery is in your mission space

NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY

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